

CLAIMS

1 – 14 and 19 (cancelled).

15. (Original) A process for substantially removing, or reducing the content of, an aldehyde in a glycol comprising contacting said glycol with at least one metal oxide.

16. (Currently amended) A process according to claim 15 wherein said metal oxide [or] is beryllium oxide, magnesium oxide, calcium oxide, strontium oxide, barium oxide, boron oxide, aluminum oxide, gallium oxide, zinc oxide, or combinations of two or more thereof.

10 17. (Original) A process according to claim 16 wherein said metal oxide is magnesium oxide or ultrafine magnesium oxide.

18. (Original) A process according to claim 17 wherein said aldehyde is acetaldehyde and said glycol is ethylene glycol.

20. (Currently amended) A process according to claim 19 14 wherein said contacting produces a metal oxide-treated glycol and said process further comprises contacting, optionally in the presence of a catalyst and at least one ultrafine metal oxide, a carbonyl compound with said metal oxide-treated [a] glycol under a condition sufficient to produce polyester wherein said glycol has been pretreated with a metal oxide.

20 21. (Currently amended) A process according to claim 20 wherein said contacting is carried in the presence of said ultrafine metal oxide, which has a particle size smaller than about 0.05 mm.

22. (Currently amended) A process according to claim 20 wherein said contacting is carried in the presence of said ultrafine metal oxide, which has a particle size smaller than about 100 nm.

23. (Currently amended) A process according to claim 20 wherein said contacting is carried in the presence of said ultrafine metal oxide and said ultrafine metal oxide or said metal oxide is beryllium oxide, magnesium oxide, calcium oxide, strontium oxide, barium oxide, boron oxide, aluminum oxide, gallium oxide, zinc oxide, or combinations of two or more thereof.

24. (Currently amended) A process according to claim 21 wherein said ultrafine metal oxide or said metal oxide is magnesium oxide.

25. (Currently amended) A process according to claim 22 wherein said ultrafine metal oxide or said metal oxide is magnesium oxide.

26. (Original) A process according to claim 25 wherein said carbonyl compound is terephthalic acid or ester thereof and said glycol is ethylene glycol.

5 27. (Currently amended) A process according to claim 20 ~~19~~ wherein said process ~~comprises further comprising~~ incorporating said at least one ultrafine metal oxide into or onto said polyester.

10 28. (Currently amended) A process according to claim 27 wherein said ultrafine metal oxide or said metal oxide is beryllium oxide, magnesium oxide, calcium oxide, strontium oxide, barium oxide, boron oxide, aluminum oxide, gallium oxide, zinc oxide, or combinations of two or more thereof.

29. (Currently amended) A process according to claim 28 wherein said ultrafine metal oxide or said metal oxide is magnesium oxide.

15 30. (Currently amended) A process according to claim 28 29 wherein said polyester is polyethylene terephthalate.

31. (New) A process comprising (1) contacting a glycol with a metal oxide to produce a metal oxide-treated glycol, (2) contacting a carbonyl compound with said metal oxide-treated glycol to produce polyester, and (3) contacting said polyester with an ultrafine metal oxide.

20 32. (New) A process according to claim 31 wherein said glycol is ethylene glycol and said carbonyl compound is terephthalic acid or dimethyl terephthalate.

25 33. (New) A process according to claim 32 wherein said metal oxide is beryllium oxide, magnesium oxide, calcium oxide, strontium oxide, barium oxide, boron oxide, aluminum oxide, gallium oxide, zinc oxide, or combinations of two or more thereof.

34. (New) A process according to claim 33 wherein said metal oxide is magnesium oxide.

35. (New) A process according to claim 34 wherein said metal oxide has a particle size smaller than about 100 nm.